Date: Thursday, 3/2/2006 3:08:26 PM
User: Kim Johnston

Process Sheet

Customer	: CU-DAR001 Dart Helicopters Services	**Drawing Name**	: BRACKET ASSEMBLY
Job Number	: 26042		
Estimate Number	: 10291		
P.O. Number	: N/A	**Part Number**	: D3183044
This Issue	: 3/2/2006 **S.O. No.** : N/A	**Drawing Number**	: D3183 REV C1
Prsht Rev.	: NC	**Project Number**	: N/A
First Issue	: N/A **Type** : MACHINED PARTS	**Drawing Revision**	: C1
Previous Run	: 25557D	**Material**	: N/A
Written By	: SEE COMMENT BELOW	**Due Date**	: 3/30/2006 **Qty:** 8 **Um:** Each
Checked & Approved By	: KJ 06.03.02		
Comment	: Est Rev:Pick:A 04.02.18 New issue KJ/DS		

Additional Product

Job Number:

Seq. #:	Machine Or Operation:	Description :
1.0	M174B2000X01500	17-4 SS Bar

Comment: Qty.: 0.4812 f(s)/Unit Total : 3.8497 f(s)
Material: 17-4 SS Bar per AMS 5604/5643
(M17-4-B1.500x02.000)
Identify for D3183-4
Batch: M154758 x 8

KJ 06/03/12

SD 06/03/06 8

2.0	BAND SAW	BAND SAW

Comment: BAND SAW 1.500"
Cut blanks: ~~(1.000"~~ x 2.000") 5.500" long

SD 06/03/06 8

3.0	HAAS1	HAAS CNC VERTICAL MACHINING #1

Comment: HAAS CNC VERTICAL MACHINING #1

1-Machine D3183-4 as per Folio FA322 and Dwg D3183
Identify as D3183-4

2-Deburr

3-Scribe batch number

SD / JL 06.03.11

P10

4.0	QC2	INSPECT PARTS AS THEY COME OFF MACHINE

Comment: INSPECT PARTS AS THEY COME OFF MACHINE

SD / JL 06.03.11

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	**STEP**	**PROCEDURE CHANGE**	**By**	**Date**	**Qty**	**Approval** Chief Eng / Prod Mgr	**Approval** QC Inspector

Part No: _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes (No) **DQA:** _____ **Date:** 06/03/15

QA: N/C Closed: _____ **Date:** _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	**STEP**	**Description of NC** Section A	**Corrective Action** Section B			**Verification** Section C	**Approval** Chief Eng	**Approval** QC Inspector
			Initial Chief Eng	**Action Description** Chief Eng	**Sign & Date**			
06.03.14	3	- 1 part scrapped, origin on 4th axis wasn't set properly causing part to be .020 thinner on one half.		- scrapped + replace	J.L 06.03.14	06.03.14		06.03.14

NOTE: Date & initial all entries

Date: Thursday, 3/2/2006 3:08:26 PM
User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services **Drawing Name:** BRACKET ASSEMBLY

Job Number: 26042 **Part Number:** D3183044

Job Number:

Seq. #:	Machine Or Operation:	Description :
5.0	QC8	SECOND CHECK

Comment: SECOND CHECK MS 06/03/14.

6.0	D312121	Bolt

Comment: Qty.: 2.0000 Each(s)/Unit Total : 16.0000 Each(s)
Pick:
Qty Part Number Description Batch
2 D3121-21 Bolt B25560
J.L 06.03.14

7.0	D3183045	Bearing Assembly

Comment: Qty.: 2.0000 Each(s)/Unit Total : 16.0000 Each(s)
Pick:
Qty Part Number Description Batch
2 D3183-045 Bearing Ass B 25562 J.L 06.03.14

8.0	SMALL FAB 1	SMALL & MEDIUM FAB RESOURCE 1

Comment: SMALL & MEDIUM FAB RESOURCE 1
Assemble D3183-043 as per Dwg D3183. J.L 06.03.14

9.0	QC5	INSPECT WORK TO CURRENT STEP

Comment: INSPECT WORK TO CURRENT STEP J.L / MS 06/03/14

10.0	PACKAGING 1	PACKAGING RESOURCE #1

Comment: PACKAGING RESOURCE #1
Identify and Stock
Location: ST42 C 06/03/15 (8)

11.0	DC	DOCUMENT CONTROL

Comment: DOCUMENT CONTROL
Inspection Level 21 (9) 06/03/15

Job Completion

06/03/15

Form: rprocess

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	**STEP**	**PROCEDURE CHANGE**	**By**	**Date**	**Qty**	**Approval** Chief Eng / Prod Mgr	**Approval** QC Inspector

Part No: _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes No **DQA:** _____ **Date:** _____

QA: N/C Closed: _____ **Date:** _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	**STEP**	**Description of NC** Section A	**Corrective Action** Section B			**Verification** Section C	**Approval** Chief Eng	**Approval** QC Inspector
			Initial Chief Eng	**Action Description** Chief Eng	**Sign & Date**			

NOTE: Date & initial all entries

DART AEROSPACE LTD	Work Order:	
Description: Bracket	Part Number:	D3183-4
Inspection Dwg: D3183 **Rev:** C		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

[X] First Article [ ] Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
R0.190	+/-0.030	.1875	✓			
R0.063	+/-0.010	R.063	✓			
0.182	+/-0.010	.186	✓			
0.070	+/-0.010	.071	✓			
0.100	+/-0.010	.103	✓			
Ø0.201 x 0.100	+/-0.010	Ø.203 x .100	✓			
0.182	+/-0.010	.184	✓			
5.32	+/-0.030	5.325	✓			
5.036	+/-0.010	5.038	✓			
~~2.120~~	~~+/-0.010~~					Cannot measure
1.290	+/-0.010	1.288	✓			
0.365	+/-0.010	.365	✓			
0.218	+/-0.010	.212	✓			
1.030	+/-0.010	1.031	✓			
1.90	+/-0.030	1.890	✓			
1.012	+/-0.010	1.015	✓			
Ø0.201 x 0.100	+/-0.010	Ø.203 x .100	✓			
0.182	+/-0.010	.183	✓			
0.786	+/-0.010	.790	✓			
Ø0.392	+0.002/-0.000	Ø.392	✓			
R0.19	+/-0.030	.203	✓			
3.954	+/-0.010	3.955	✓			
0.162	+/-0.010	.165	✓			
R0.19	+/-0.030	R .203	✓			
R0.25	+/-0.030	R .250	✓			
4.26	+/-0.030	4.262	✓			
2.800 Calculated dimension	+/-0.030	2.805	✓			
0.162	+/-0.010	.165	✓			
0.615	+/-0.010	.612	✓			
0.435	+/-0.010	.435	✓			
0.200	+/-0.010	.205	✓			
0.381	+/-0.010	.384	✓			
0.032	+/-0.010	.032	✓			

Measured by:		Audited by:		Prototype Approval:	N/A
Date:	06.03.	Date:	06/03/16	Date:	N/A

Rev	Date	Change	Revised by	Approved
A	03.11.12	New Issue P/O D3183-044	KJ/RF	
B	04.03.15	Changes as per revision C	KJ/JLM/RF	
C	04.06.15	Dimension 2.800 was 2.080; removed 1.155, 0.36 dimensions	KJ/JLM	

RELEASED 04-06-27

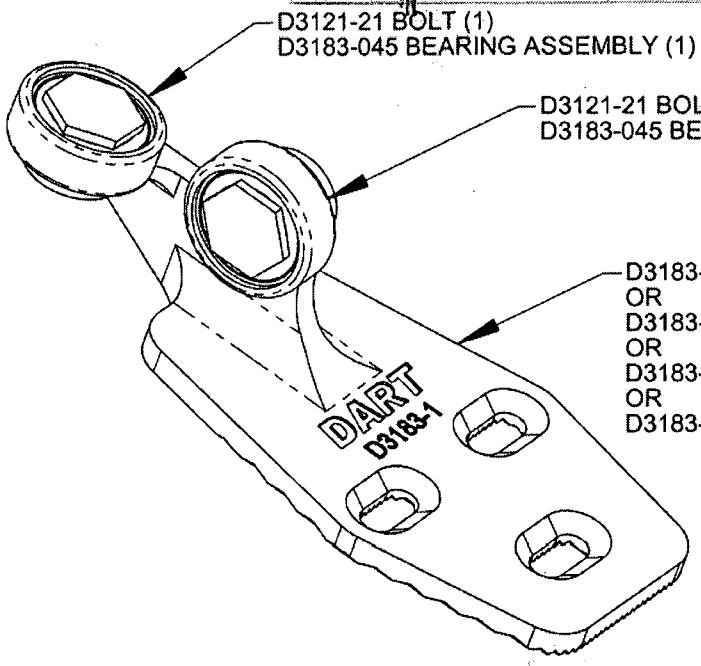
DESIGN		DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA
CHECKED		APPROVED	DRAWING NO. D3183 REV. C SHEET 1 OF 4
DATE	04.02.17		TITLE BRACKET ASSEMBLY SCALE 1:1

DART

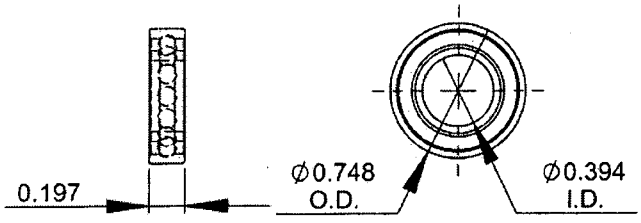
DA COPY ISSUED

RELEASED 04.03.01

A	03.01.24	NEW ISSUE
B	03.06.17	REMOVE BEARING; 1.012 WS 0.882
C	04.02.17	ADD -045/-9; 0.182 WAS 0.431
C1	04.11.09	0.830 WAS 0.850

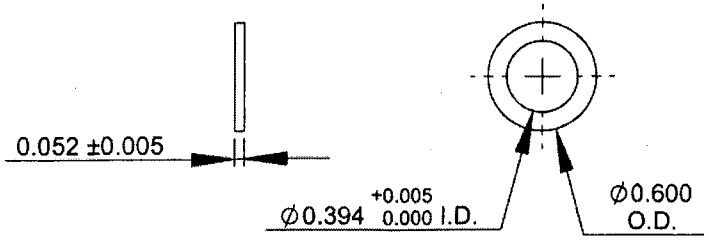


D3183-041 BRACKET ASSEMBLY (SHOWN)
D3183-042 BRACKET ASSEMBLY (OPPOSITE)
D3183-043 BRACKET ASSEMBLY (SIMILAR)
D3183-044 BRACKET ASSEMBLY (SIMILAR)



D3183-5 BEARING: SPECIFICATION CONTROL DRAWING

1) SINGLE ROW, DEEP GROOVE, CONRAD TYPE, SHIELDED
2) POSSIBLE SUPPLIER: NSK P/N 6800ZZ
3) ALL DIMENSIONS ARE IN INCHES



D3183-7 WASHER

1) MATERIAL: AISI 303 ROUND BAR (M303R) ANNEALED
2) BREAK ALL SHARP EDGES 0.005 TO 0.010
3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
4) ALL DIMENSIONS ARE IN INCHES

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WORK ORDER NO. 26042

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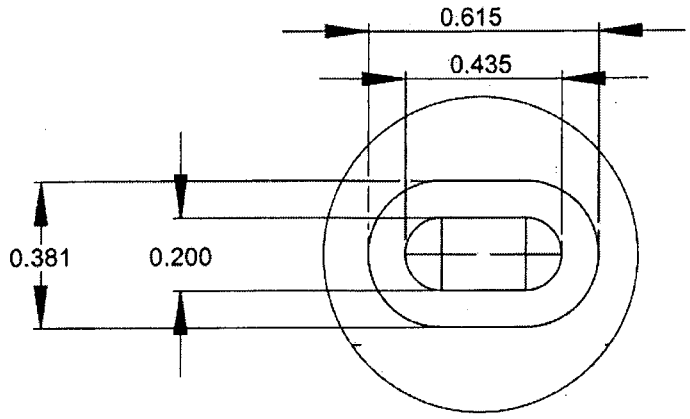
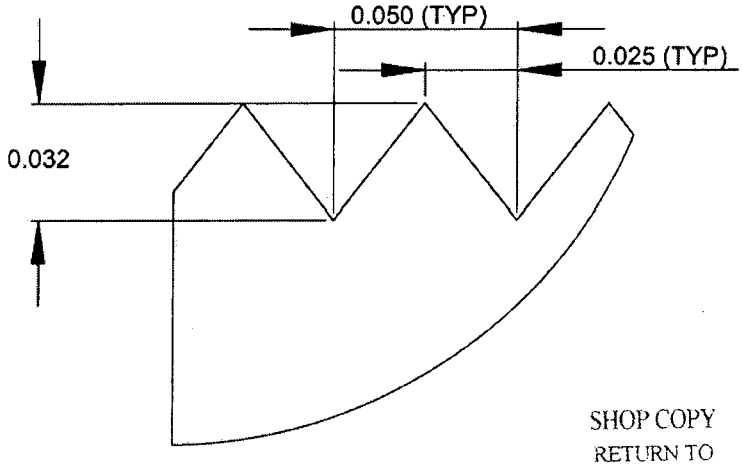
CHECKED	APPROVED	DRAWING NO. D3183	REV. C
			SHEET 4 OF 4
DATE 04.02.17		TITLE BRACKET ASSEMBLY	SCALE 1:1



DETAIL A (2 : 1)

RELEASED
04.03.01



DETAIL B (20 : 1)

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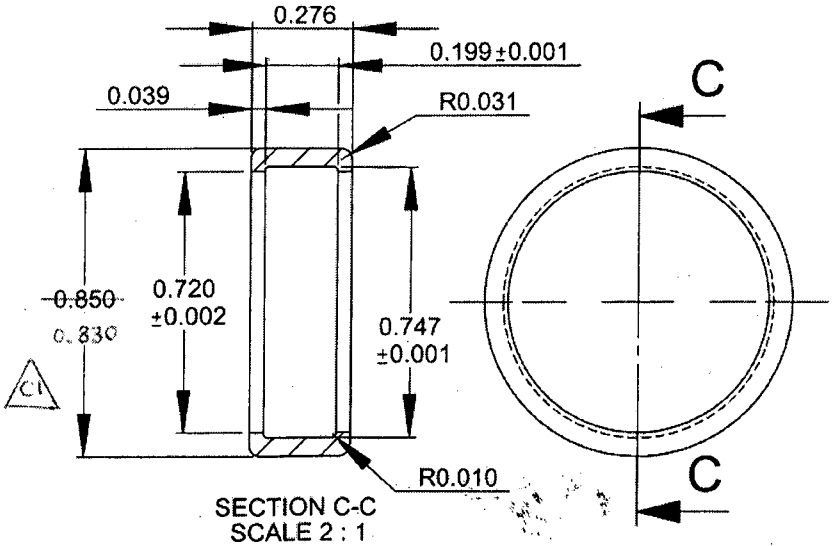


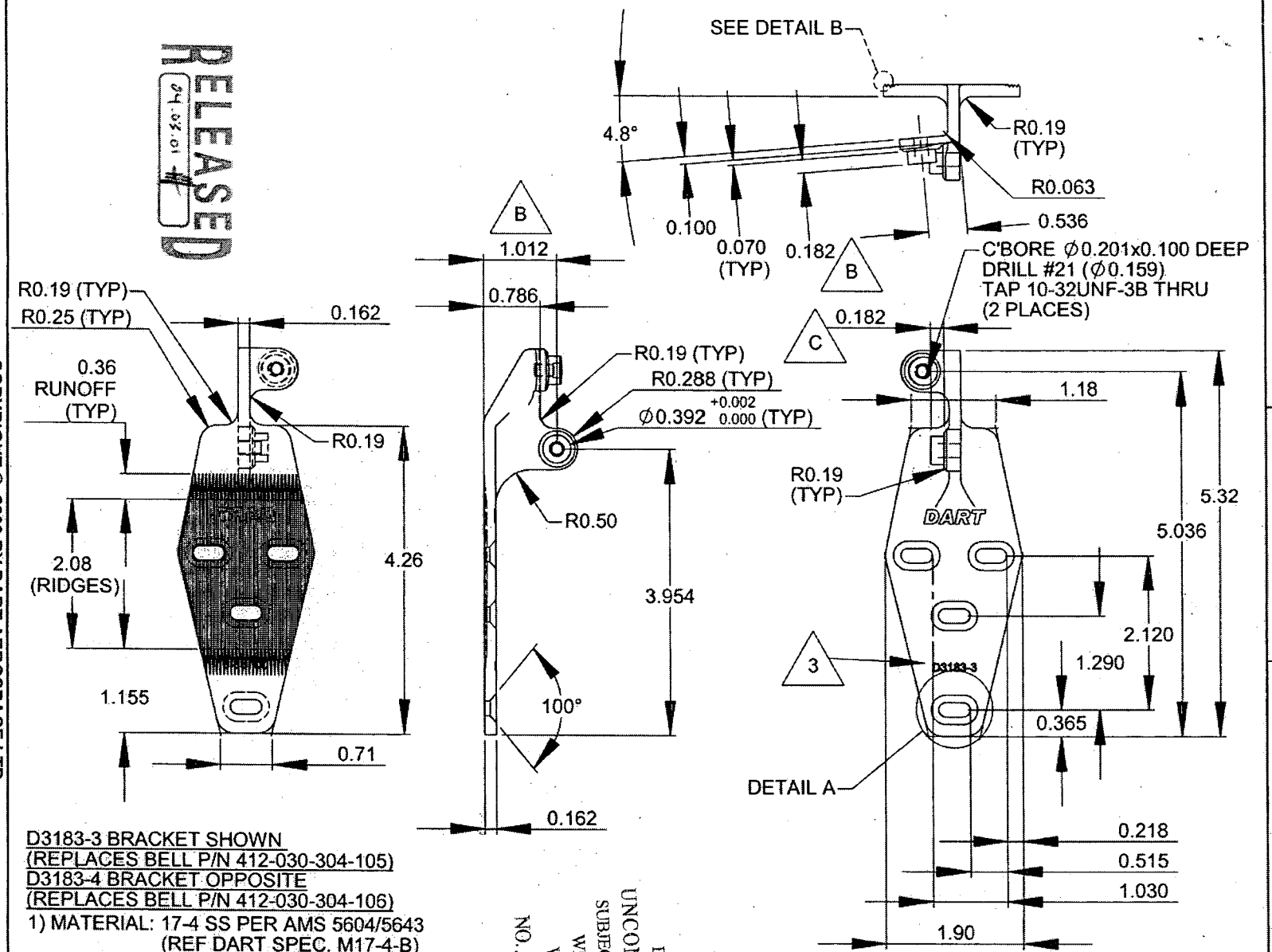
SECTION C-C
SCALE 2 : 1

D3183-9 CAP

1) MATERIAL: DELRIN ROD, Ø1.00
(REF DART SPEC. M-DELRIN-R1.00)
2) TOLERANCES ARE PER DART QSI 018
UNLESS OTHERWISE NOTED
3) ALL DIMENSIONS ARE IN INCHES

D3183-045 BEARING ASSEMBLY

1) ASSEMBLE D3183-5 BEARING AND
D3183-9 CAP



D3183-3 BRACKET SHOWN
(REPLACES BELL P/N 412-030-304-105)
D3183-4 BRACKET OPPOSITE
(REPLACES BELL P/N 412-030-304-106)

1) MATERIAL: 17-4 SS PER AMS 5604/5643
(REF DART SPEC. M17-4-B)
MIN ULTIMATE STRENGTH = 150 ksi
MIN YIELD STRENGTH = 100 ksi
2) BREAK ALL SHARP EDGES 0.005 TO 0.015
3) ENGRAVE DART P/N & LOGO AS SHOWN
4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
5) ALL DIMENSIONS ARE IN INCHES

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NO. 36042

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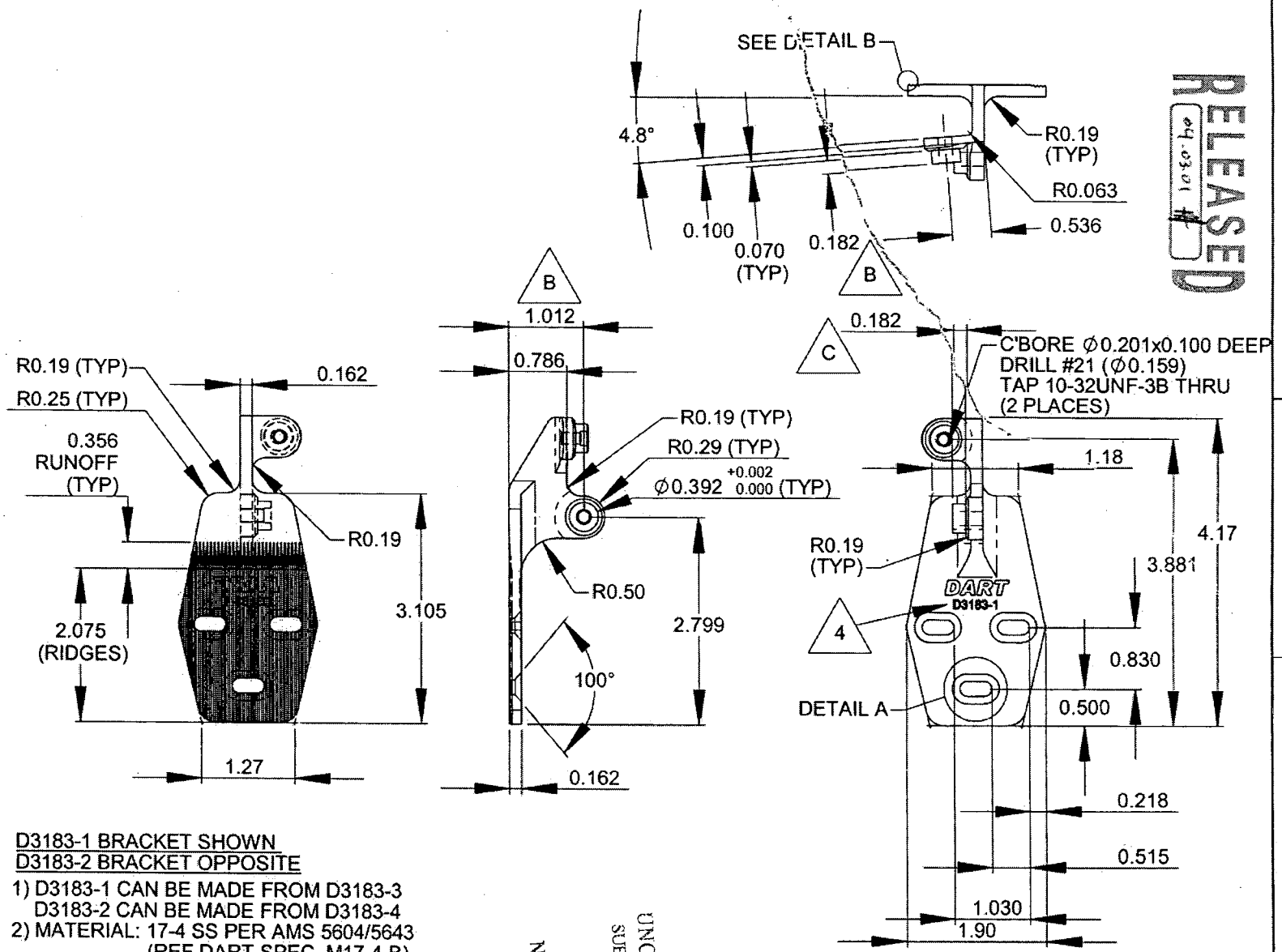
CHECKED	APPROVED	DRAWING NO. D3183	SHEET 3 OF 4
DATE 04.02.17		TITLE BRACKET ASSEMBLY	SCALE 1:2



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CHECKED	APPROVED	DRAWING NO. D3183	REV. C SHEET 2 OF 4
DATE 04.02.17		TITLE BRACKET ASSEMBLY	SCALE 1:2